

David John CHATTING, *et al.*
Serial No. 10/585,785
August 13, 2008

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

In response to the rejection of claim 9 under 35 U.S.C. §101, claim 9 has been amended so as to obviate this ground of rejection.

The rejection of claims 1-3, 9-13 and 15 under 35 U.S.C. §102 as allegedly anticipated by Bouton is respectfully traversed.

Claims 1 and 11 have been cancelled as superfluous in view of independent claims 2 and 12.

Applicants' invention deals with the generation of caricatured images – having advantageous application, for example, in improvement of recognizable differences between caricatured images representing people in a closed group (e.g., those participating in a telephone conference). Using conventional caricaturing techniques, the difference between caricatured images of the closed group members may diminish as the group size increases. However, as the group size decreases (e.g., as individuals leave the conference call), the displayed caricatured images may be further caricatured so as to improve the recognizable distinction between the remaining caricatured images corresponding to those still on the conference call.

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For example, claim 2 requires storing not only image representations of subjects, but also corresponding respective caricatured representations of those subjects. Claim 2 also requires receiving an image representation of a new subject – and then generating replacement caricatured image representations of the subjects in dependence on (a) the earlier stored image representations thereof, and (b) the newly received image representation of the new subject. That is, the group of caricatured image representations is increased in size and, accordingly, replacement caricatured image representations of the involved subjects in this particular group are generated.

Independent claim 12 has similar limitations in apparatus format.

By contrast, Bouton does not at all deal with generation of caricatured image representations. The Examiner cites to pages 93 and 266-267 of Bouton. However, page 93 merely deals with file-saving preferences and image previews (e.g., thumbnails of images). Pages 266-267 deal with bringing images into the computer; however, as with page 93, the images brought into the computer appear to be true, non-caricatured images of artwork, photographs, etc.

The Examiner also refers to the image at Fig. 9.10 on page 274 of Bouton. However, this appears to represent simply using photoshop tools to apply a layer mask so as to, in effect, make a composite of two images. However, neither the starting images nor the resulting composite represent a caricatured image. Merely adding or subtracting

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some image layer(s) may produce different images – but none of them are newly caricatured by such process.

In short, it appears that the Examiner has discounted the claim term “caricatured.” In this regard, the Examiner is referred to the attached definitions of “caricature” taken from the Oxford Pocket Dictionary of Current English and from Wikipedia. It will be noted that those skilled in the art clearly understand a caricatured image would not correspond to any image generation process described by Bouton in the use of Adobe® Photoshop Version 5. Indeed, , there is no description in Bouton as to how caricatured images were generated – let alone whether such would be generated with respect to a closed group including re-generating new caricatured images each time a new subject was added to the group (e.g., see applicants’ claims 2 and 12).

All pending claims relate to generating caricatured images of subjects. It is well known that to “caricature” an image of a subject involves exaggerating and/or distorting a representation of that subject, e.g., for comical effect, while retaining some degree of identifiable visual likeness. Definitions along these lines may be obtained via various dictionaries, on-line sources, etc. (as attached hereto).

A known method for caricaturing a new facial image is described at page 3, lines 10-25 of applicants’ specification. This involves taking a group of facial images, identifying a mean face therefrom, identifying the differences between the new facial

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image and the mean, and then modifying the new facial image by exaggerating the differences away from the mean, the result being to make the face more recognizable.

Claim 2 defines a method of generating replacement caricatured image representations, i.e., to replace existing stored caricatures which correspond to image representations of subjects. Upon receiving a new image, such as a photograph of a person, replacement caricatures of the whole group are generated in dependence on the stored representations of the subjects and the new image. In this way, each time a new image is received into a closed group of images, all stored caricatures can be better (e.g., maximally) distinguished from one another.

Bouton has no reference to caricaturing – and, therefore, is not even relevant to the applicants' claims. While Bouton discloses storing image representations of subjects, there is no disclosure of storing corresponding respective caricatured image representations of the subjects, nor any disclosure of generating replacement caricatured image representations of the subjects in dependence on the stored image representations thereof and the received image representation of the new subject.

Compositing is not the same as caricaturing and would not be interpreted as such by a skilled person. Even if it was, there is no storing of composited images corresponding respectively to stored image representations of subjects, nor any

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generation of replacement composited image representations in dependence on stored image representations and a received image representation of a new subject.

Given such fundamental distinctions between Bouton and independent claims 2 and 12, it is not believed necessary at this time to explain further deficiencies of this reference with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible for a reference to anticipate any claim unless it teaches each and every feature of that claim.

The rejection of claims 4 and 14 under 35 U.S.C. §103 as allegedly being made “obvious” based on Bouton in view of Horii ‘463 is also respectfully traversed.

Claims 4 and 14 depend, respectively, from claims 2 and 12. As already discussed above, Bouton has fundamental deficiencies with respect to recitations in these parent claims. Horii does not supply those deficiencies. Accordingly, it is not believed necessary at this time to discuss additional deficiencies of this allegedly “obvious” combination of references with respect to the additional features of claims 4 and 14.

However, it is noted that it would not have been “obvious” for one of only ordinary skill in the art to modify Bouton with the teachings of Horii – in part because Bouton does not teach generation of any caricatured images in the first place – let alone a caricature weighting factor which generally increases with time. Yet further, the Horii

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image aging algorithm which the Examiner relies upon (3:4-16) simply refers to assigning an age to processing of a given facial image so as to simulate the appearance of that person at some particular point in the aging process. It does not teach an on-going process which gradually changes the image appearance as a function of elapsed time during image processing.

The rejection of claims 6, 8, 16 and 18 under 35 U.S.C. §103 as allegedly being made “obvious” based on Bouton in view of Dayton is also respectfully traversed.

Independent claims 6 and 16 also require, *inter alia*, the generation of caricatured images and the generation of replacement caricatured image representations in dependence upon stored image representations of an initial group of subjects – but now generated at least partially discounting the image representations of the subjects indicated as leaving the group.

Accordingly, the earlier noted deficiencies of Bouton with respect to independent claims 2 and 12 also apply to independent claims 6 and 16.

Dayton does not supply those deficiencies. Indeed, Dayton merely also teaches how to use Adobe® Photoshop Version 5 – without any apparent ability to generate caricatured images. Instead, the referenced pages of Dayton (page 90, number 3) have to do with hiding layers of a multi-layered image. This permits one to turn on or off various

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layers associated with different garments (sunhat, flowers, sunglasses and sweatshirt) that can be overlaid to “dress” a previously supplied caricatured image of “Barbie/G. I. Joe.” However, this has nothing to do with the generation of any “leave” signal representing the loss of a member in a closed group and the corresponding adjustment of the caricatured images utilized for those remaining in the group. For example, there is no disclosure of plural Barbie images being generated (i.e., as a caricature of a first image – or of changing the number of plural Barbie images in a group. The Examiner’s reference to a possible “click on the eye button” simply represents clicking an icon to toggle various clothing/apparel image layers on and off – thereby dressing the single Barbie doll image differently.

With respect to claims 8 and 18, the Examiner attempts to find the Dayton teaching of a group of different dress elements for a single Barbie doll image as constituting the claimed closed group of subjects. However, the dressing or undressing of a single Barbie doll by deleting or adding layers of clothing to the same single subject image clearly cannot correspond to a closed group of subjects as claimed.

The rejection of claims 7 and 17 under 35 U.S.C. §103 as allegedly being made “obvious” based on Bouton in view of Dayton and in further view of Astle ‘682 is also respectfully traversed.

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Fundamental deficiencies of both Bouton and Dayton have already been noted above with respect to parent claims 6 and 16. Astle does not supply those deficiencies.

Indeed, Astle is not even analogous art as it is directed toward generation of the illusion of motion from a sequence of still images – and also has nothing to do with caricaturing at all – let alone caricaturing with respect to a closed group and adjusting a weighting factor as a function of time for regeneration of the caricatured image representation as a function of subjects leaving a closed group.

The Examiner's attention is drawn to new claims 19-23. It will be seen that independent method claim 19 requires, *inter alia*, storing first facial images corresponding to a group of persons, generating and storing a second facial image for each such person, the second image being a caricatured image respectively corresponding to one of the first facial images. A first facial image is then received for a new person who is not currently a member of the group. Upon that happening, a replacement set of caricatured second facial images is generated and stored for the persons already in the group and the new person – as a function of their corresponding first facial images. Finally, claim 19 requires display of the replacement set of caricatured second facial images to represent a new group of persons now including the new person.

Dependent claims 20-22 add yet further patentable features. For example, claims 20 and 22 require use of a caricature weighting factor which increases as a function of the

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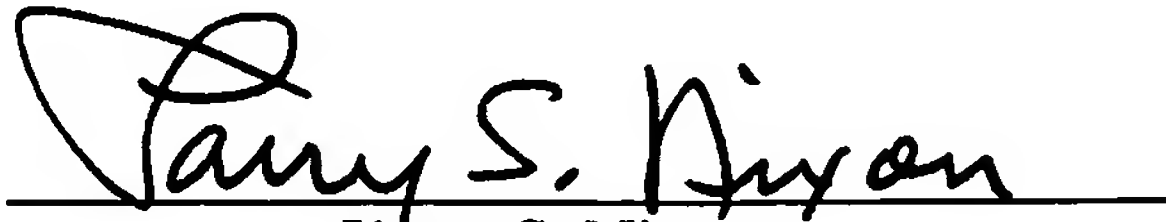
number of persons in the group. Claim 21 requires generating and storing another replacement set of caricatured second facial images for the persons left remaining in the group as a person leaves the group – and the caricatured images of the replacement set being generated as a function of their corresponding first facial images – followed by display of the another replacement set of caricatured second facial images representing the remaining group of persons.

New claim 23 is directed to a tangible storage medium containing computer program code which, when executed by a computer, effects the method of claim 19.

Accordingly, all claims – including these new claims – are believed to be patentably distinct from any teaching or suggestion of the cited prior art. A formal notice of allowance is, therefore, respectfully solicited.

Respectfully submitted,

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